

WHAT IS CLAIMED IS:

1. A nuclear camera system comprising:
a detector which acquires radionuclide event
5 data;
an image processor which processes the event
data to produce image data;
an image data storage medium which stores the
image data; and
10 an image data processor which formats the image
data for storage on the storage medium in an
extensible and open data format.
2. The nuclear camera system of Claim 1,
15 wherein the image data processor formats the image
data in xml format.
3. The nuclear camera system of Claim 1 or 2,
wherein the data format is self-descriptive.
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4. The nuclear camera system of Claim 3,
wherein the data format further comprises format
definitions which are available with the image data.
- 25 5. The nuclear camera system of Claim 4,
wherein a format definition describes the
relationship between two or more pieces of image
data.
- 30 6. The nuclear camera system of Claim 5,
wherein the image data is stored in a data file; and
wherein the image data file contains a pointer to a
file storing a definition of the image data format.
- 35 7. The nuclear camera system of Claim 6,

wherein the pointer is to an address of a file stored on the nuclear camera system.

8. The nuclear camera system of Claim 6,
5 wherein the pointer is to a URL address where the image data definition file may be found.

9. The nuclear camera system of Claim 6,
wherein the image data file is of the form
10 <image.xml> and wherein the image data format definition file is of the form <image.dtd>.

10. A nuclear camera system comprising:
a detector which acquires radionuclide event
15 data;
an image processor which processes the event data to produce image data;
an acquisition controller which acts to control the detector to acquire event data in accordance with
20 a study protocol; and
a control data storage medium, coupled to the acquisition controller, which stores control data in an extensible and open data format.

25 11. The nuclear camera system of Claim 10, wherein the control data is stored in xml format.

12. The nuclear camera system of Claim 11,
wherein the control data comprises at least one of
30 protocol data, collimator data, isotope data, and energy window data.

13. The nuclear camera system of Claim 12,
wherein the control data is of at least one of the
35 forms of protocols.xml, collimators.xml,

isotopes.xml, and energywindowsets.xml.

14. The nuclear camera system of Claim 12,
wherein the acquisition controller executes a script
5 utilizing an xml file to control the acquisition of
event data.

15. The nuclear camera system of Claim 14,
wherein the xml file utilized by the script is a
10 protocol file of the form <protocol.xml>.

16. The nuclear camera system of Claim 13,
wherein an xml files point to a format definition
file of at least one of the forms of protocols.dtd,
15 collimators.dtd, isotopes.dtd, and
energywindowsets.dtd.

17. A nuclear camera system comprising:
a detector which acquires radionuclide event
20 data;
an image processor which processes the event
data to produce image data;
an acquisition controller which acts to control
the detector to acquire event data in accordance with
25 a study protocol; and
a control data storage medium, coupled to the
acquisition controller, which stores control data in
xml format, the control data comprising xml files
provided by the camera system manufacturer and xml
30 files modified or created by a camera user.

18. The nuclear camera system of Claim 17,
further comprising an image data storage medium,
coupled to the image processor, which stores image
35 data in xml format.

19. The nuclear camera system of Claim 18,
further comprising a user interface and a server,
responsive to the user interface and coupled to the
5 control data storage medium and the image data
storage medium, which accesses xml control data files
or xml image data files in response to user commands.

20. The nuclear camera system of Claim 19,
10 wherein the server executes scripts which utilize xml
control data files.